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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/634,449 | 08/05/2003 | Kenji Harano | 14095Z | 6708 |

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| EXAMINER | |
|---|---|
| JOHNSON III, HENRY M | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 3739 | |

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/634,449 | HARANO ET AL. | |
| | Examiner | Art Unit | |
| | Henry M Johnson, III | 3739 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *07 March 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *17-44* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *29-44* is/are allowed.

6)☒ Claim(s) *17-20,24 and 28* is/are rejected.

7)☒ Claim(s) *21-23 and 25-27* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 November 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

### *Response to Arguments*

Applicant's arguments filed March 7, 2005 have been fully considered but they are not persuasive. Yates clearly indicates the RF energy may be turned off or controlled. The control function would provide for reducing or increasing the power as dictated by the measured impedance. The control function inherently provides a reduction based on the predetermined calculated function and since it is not turned off, it is a fraction of the previous value. Yates also discloses threshold values from a look up table, thus teaching selecting from a plurality of predetermined target values.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 17-19 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,558,671 to Yates. Yates teaches an electrosurgical device for ablation of tissue typically using RF energy (Col. 1, lines 15-22). Yates teaches control of the RF generator using a signal that provides a variable direct current (Fig. 10, # 64) voltage to the generator (Col 9, lines 63-67). A DC power supply is implicit in the ability to provide a variable DC voltage. Current and voltage to the electrodes is measured (detection circuit) and impedance calculated (Fig. 10, # 89). When the minimum impedance is determined, it is used to calculate a target impedance (estimation circuit) at which treatment completed (Col 8, lines 40-45). Circuitry is disclosed to control the generator based on the target impedance value (setting circuit). Yates teaches control of the RF power using the measured impedance (Col. 3, lines 1-5). Control

involves both reducing and increasing the power to maintain a desired condition. Yates further discloses the threshold determination may use a look up table (Col. 2, line 64) that is a plurality of predetermined values.

Regarding claims 18 and 19, minimum impedance correlates to a maximum current.

Regarding claim 28, the method is disclosed as described above and referring to the flow diagram (Fig. 7).

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 20 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,558,671 to Yates as applied to claim 17 above and further in view of U.S. Patent 6,083,223 to Baker. Yates is discussed above, but does not disclose using impedance over time in determination of the target impedance value. Baker teaches a method and device for sealing blood vessels using impedance feedback to control the power level and the rate (over time) of the rise in actual impedance (Col. 9, lines 60-16). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the change in impedance over time as taught by Baker in the invention of Yates to refine the impedance data for better control of the process.

### *Allowable Subject Matter*

Claims 29-44 are allowed.

Claims 21-23 and 25-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Care is required if the claims are rewritten to avoid duplicating allowed claims 29-44.

### *Reasons For Allowance*

The prior art of record does not disclose or fairly suggest an apparatus and method for electrosurgery comprising a high frequency generator with circuits to detect current, voltage and impedance and a circuit to estimate the end point of a procedure, such as coagulation, using the time required to reach the minimum impedance (or maximum current). While prior art teaches calculation of an end point using minimum impedance and rate of change of the impedance, none disclose the time for obtaining an initial minimum impedance as a calculation variable.

### *Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

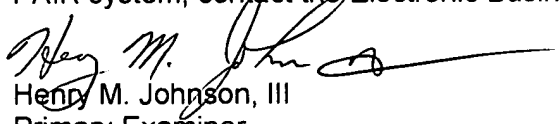
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry M Johnson, III whose telephone number is (571) 272-4768. The examiner can normally be reached on Monday through Friday from 6:00 AM to 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Henry M. Johnson, III
Primary Examiner
Art Unit 3739